



Common Core State Standards Overview and PARCC/Implementation Update

2010 English Language Arts

2010 Mathematics

Literacy in History/Social Studies, Science, and Technical Subjects

Partnership for the Assessment of Readiness for College and Careers



Arizona

The Work is Underway

- **Rollout of Arizona Standards in ELA and Mathematics**
- **Regional Centers will Support Transition Work, Communication, and Training**
- **Phase 1 and 2 Training**
- **PARCC Content Frameworks for ELA and Mathematics released in November 2011**
- **Arizona Common Core/PARCC Website re-launched in October 2011**
- **Higher Education Engagement**
- **PARCC Transition & Implementation Institute for Stakeholder Engagement**
- **PARCC Operational Working Group participation**
- **Course Requirements for High School Mathematics Increasing**



What is College and Career Readiness?

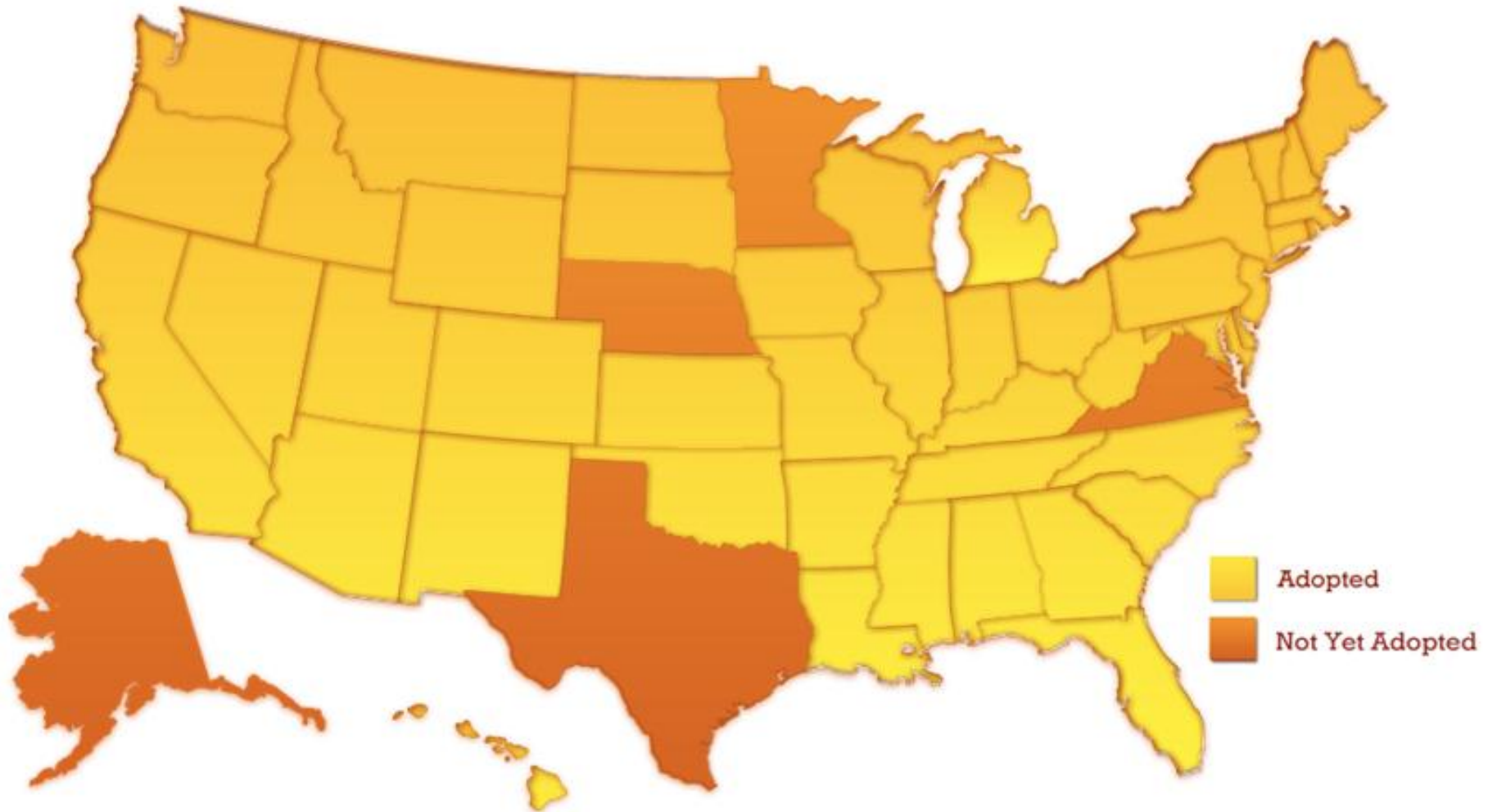
College and Career Readiness Defined...

College and career readiness is the acquisition of the knowledge and skills a student needs to enroll and succeed in credit-bearing, first year courses at a postsecondary institution (such as a two or four year college, trade school, or technical school) without the need for remediation.

-- ACT definition, adopted by Common Core

45 States + DC Have Adopted the Common Core State Standards

*Minnesota adopted the CCSS in ELA/literacy only





2010 English Language Arts Standards

College and Career Readiness (CCR) Standards

- Overarching standards for each strand that are further defined for grade-specific standards

Grade-Level Standards in English Language Arts

- K-8, articulated by grade level
- 9-10 and 11-12, grade level bands
- Four broad strands: Reading (RL/RI/RF), Writing, Listening and Speaking, and Language

Standards for Literacy in History/Social Studies, Science and Technical Subjects

- Embedded at Grades K-5
- Content Specific Grades 6-12



Key Design Considerations of the 2010 ELA Document...

Focus on results

Integrated model of literacy

Research and media skills blended into standards

Shared responsibility for students' literacy development

Focus on college and career readiness



2010 ELA Document Organization

College and Career Readiness Anchor Standards

K-5

Comprehensive
English Language
Arts (includes Social
Studies, Science and
Technical Text)

6, 7, 8, 9-10,
11-12

ELA
Content

6-8, 9-10, 11-12

Literacy in
History/Social
Studies, Science,
and Technical
Subjects

Appendices A, B, and C

College and Career Readiness Anchor Standards for Reading

The K–5 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The CCR and grade-specific standards are necessary complements—the former providing broad standards, the latter providing additional specificity—that together define the skills and understandings that all students must demonstrate.

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.*
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

Note on range and content of student reading

To build a foundation for college and career readiness, students must read widely and deeply from among a broad range of high-quality, increasingly challenging literary and informational texts. Through extensive reading of stories, dramas, poems, and myths from diverse cultures and different time periods, students gain literary and cultural knowledge as well as familiarity with various text structures and elements. By reading texts in history/social studies, science, and other disciplines, students build a foundation of knowledge in these fields that will also give them the background to be better readers in all content areas. Students can only gain this foundation when the curriculum is intentionally and coherently structured to develop rich content knowledge within and across grades. Students also acquire the habits of reading independently and closely, which are essential to their future success.

*Please see "Research to Build and Present Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for additional standards relevant to gathering, assessing, and applying information from print and digital sources.

Grade 6 students:		Grade 7 students:		Grade 8 students:	
Key Ideas and Details					
1.	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1.	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.	1.	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
2.	Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.	2.	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	2.	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.
3.	Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes).	3.	Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).	3.	Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
Craft and Structure					
4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.	4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.	4.	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
5.	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.	5.	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.	5.	Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.
6.	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.	6.	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	6.	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.
Integration of Knowledge and Ideas					
7.	Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.	7.	Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium's portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).	7.	Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.
8.	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	8.	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	8.	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
9.	Compare and contrast one author's presentation of events with that of another (e.g., a memoir written by and a biography on the same person).	9.	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.	9.	Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
Range of Reading and Level of Text Complexity					
10.	By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10.	By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.	10.	By the end of the year, read and comprehend literary nonfiction at the high end of the grades 6–8 text complexity band independently and proficiently.



2010 Mathematics Standards

8 Standards for Mathematical Practice

- Describe varieties of expertise “habits of mind” that mathematics educators at all levels should seek to develop in their students.

Grade-Level Standards in Mathematics

- K-8, presented by grade level with each grade level containing work on several domains.
- Domains often progress over several grade levels.
- 9-12, standards are arranged in *conceptual categories*.



8 Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Overview of the 2010 Mathematics Standards (Common Core State Standards)

The 2010 Mathematics Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are focused, coherent, and relevant to the real world, describing the knowledge and skills that students need for success in college and careers.

In K-8 (Kindergarten, Elementary, and Middle School) each *grade* contains work on several *domains*, as described in the table below. For example: In Grade 1, the content includes Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry.

Grade	K	1	2	3	4	5	6	7	8	HS Conceptual Categories
Domains	Counting & Cardinality						Ratios & Proportional Relationships		Functions	Functions
	Operations and Algebraic Thinking						Expression and Equations			Algebra
	Number and Operations in Base Ten						The Number System			Number & Quantity
				Fractions						
	Measurement and Data						Statistics and Probability			Statistics & Probability
	Geometry						Geometry			Geometry

In High School, the standards are arranged in *conceptual categories*, such as Algebra or Functions. In each conceptual category there are *domains*, such as Creating Equations and Interpreting Functions.

Conceptual Category	Number & Quantity	Algebra	Functions	Geometry	Statistics & Probability
Domains	The Real Number System	Seeing Structure in Expressions	Interpreting Functions	Congruence	Interpreting Categorical & Quantitative Data
	Quantities	Arithmetic with Polynomials & Rational Expressions	Building Functions	Similarity, Right Triangles, & Trigonometry	Making Inferences & Justifying Conclusions
	The Complex Number System	Creating Equations	Linear, Quadratic, & Exponential Models	Expressing Geometric Properties with Equations	Conditional Probability & the Rules of Probability
	Vector & Matrix Quantities	Reasoning with Equations & Inequalities	Trigonometric Functions	Geometric Measurement & Dimension	Using Probability to Make Decisions

Mathematical Practices

The **Standards for Mathematical Practice** describe characteristics and traits that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy). These eight practices can be clustered into the following categories as shown in the chart below: *Habits of Mind of a Productive Mathematical Thinker, Reasoning and Explaining, Modeling and Using Tools, and Seeing Structure and Generalizing.*

Habits of Mind of a Productive Mathematical Thinker MP.1 Make sense of problems and persevere in solving them. MP.6 Attend to precision.	<i>Reasoning and Explaining</i> MP. 2 Reason abstractly and quantitatively. MP. 3 Construct viable arguments and critique the reasoning of others.
	<i>Modeling and Using Tools</i> MP. 4 Model with mathematics. MP. 5 Use appropriate tools strategically.
	<i>Seeing Structure and Generalizing</i> MP. 7 Look for and make use of structure. MP. 8 Look for and express regularity in repeated reasoning.

Arizona Mathematics Standards Articulated by Grade Level

Grade 4

Grade 4 Overview

Operations and Algebraic Thinking (OA)

- Use the four operations with whole numbers to solve problems.
- Gain familiarity with factors and multiples.
- Generate and analyze patterns.

Number and Operations in Base Ten (NBT)

- Generalize place value understanding for multidigit whole numbers.
- Use place value understanding and properties of operations to perform multi-digit arithmetic.

Number and Operations—Fractions (NF)

- Extend understanding of fraction equivalence and ordering.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
- Understand decimal notation for fractions, and compare decimal fractions.

Measurement and Data (MD)

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
- Represent and interpret data.
- Geometric measurement: understand concepts of angle and measure angles.

Geometry (G)

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Mathematical Practices (MP)

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Operations and Algebraic Thinking (OA)

Generate and analyze patterns.

<u>Standards</u>	<u>Mathematical Practices</u>	<u>Explanations and Examples</u>									
<p><i>Students are expected to:</i></p> <p>4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <i>For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.</i></p> <p>Connections: 4.OA.4; 4.RI.3; 4.RI.7; 4.W.2b; 4.W.2d; ET04-S1C1-01; ET04-S1C3-01</p>	<p>4.MP.2. Reason abstractly and quantitatively.</p> <p>4.MP.4. Model with mathematics.</p> <p>4.MP.5. Use appropriate tools strategically.</p> <p>4.MP.7. Look for and make use of structure.</p>	<p>Patterns involving numbers or symbols either repeat or grow. Students need multiple opportunities creating and extending number and shape patterns. Numerical patterns allow students to reinforce facts and develop fluency with operations.</p> <p>Patterns and rules are related. A pattern is a sequence that repeats the same process over and over. A rule dictates what that process will look like. Students investigate different patterns to find rules, identify features in the patterns, and justify the reason for those features.</p> <p>Examples:</p> <table border="1"> <thead> <tr> <th>Pattern</th><th>Rule</th><th>Feature(s)</th></tr> </thead> <tbody> <tr> <td>3, 8, 13, 18, 23, 28, ...</td><td>Start with 3, add 5</td><td>The numbers alternately end with a 3 or 8</td></tr> <tr> <td>5, 10, 15, 20 ...</td><td>Start with 5, add 5</td><td>The numbers are multiples of 5 and end with either 0 or 5. The numbers that end with 5 are products of 5 and an odd number. The numbers that end in 0 are products of 5 and an even number.</td></tr> </tbody> </table> <p>After students have identified rules and features from patterns, they need to generate a numerical or shape pattern from a given rule.</p> <p>Example:</p> <p>Rule: Starting at 1, create a pattern that starts at 1 and multiplies each number by 3. Stop when you have 6 numbers.</p> <p>Students write 1, 3, 9, 27, 81, 243. Students notice that all the numbers are odd and that the sums of the digits of the 2 digit numbers are each 9. Some students might investigate this beyond 6 numbers. Another feature to investigate is the patterns in the differences of the numbers ($3 - 1 = 2$, $9 - 3 = 6$, $27 - 9 = 18$, etc.)</p>	Pattern	Rule	Feature(s)	3, 8, 13, 18, 23, 28, ...	Start with 3, add 5	The numbers alternately end with a 3 or 8	5, 10, 15, 20 ...	Start with 5, add 5	The numbers are multiples of 5 and end with either 0 or 5. The numbers that end with 5 are products of 5 and an odd number. The numbers that end in 0 are products of 5 and an even number.
Pattern	Rule	Feature(s)									
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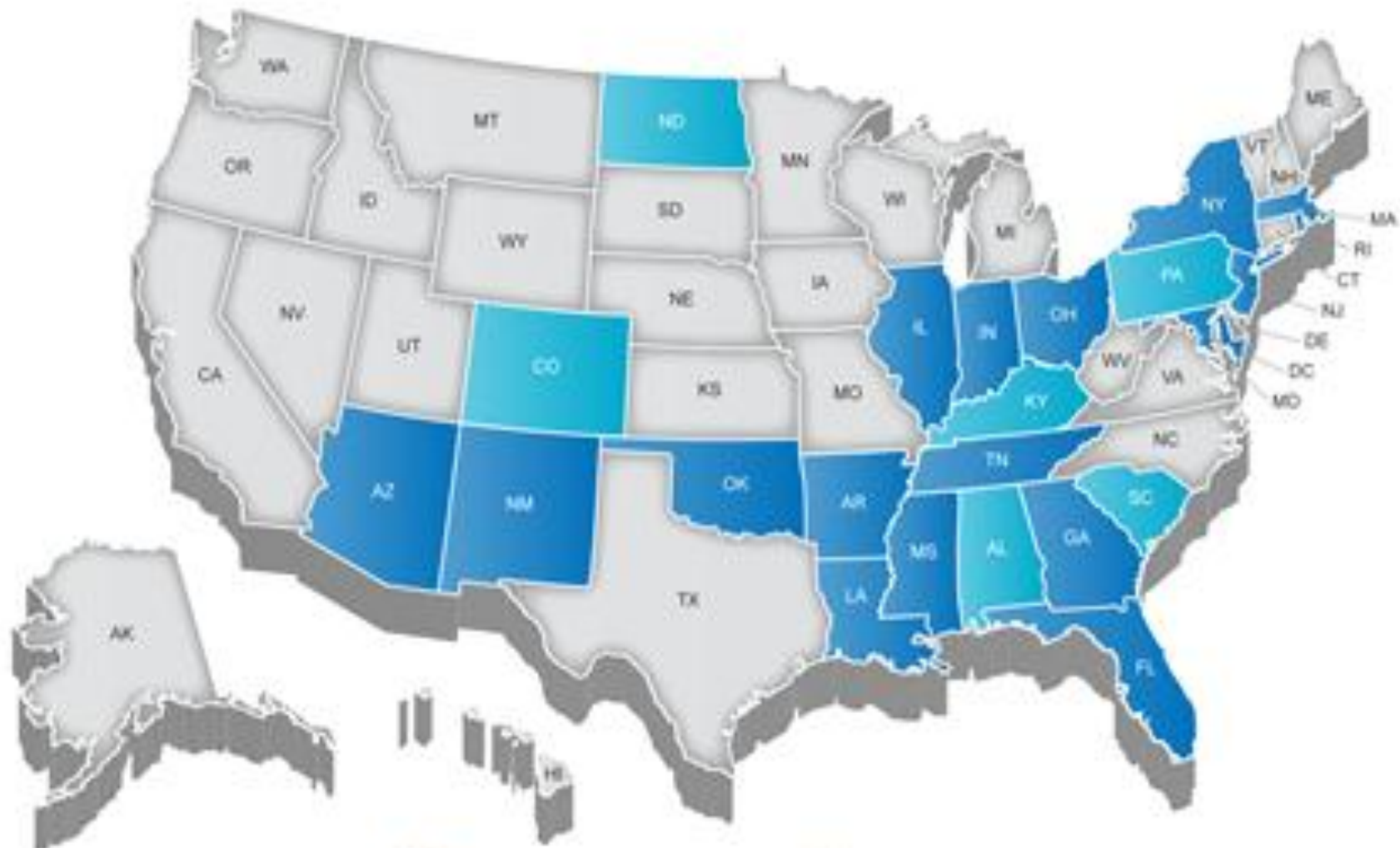


The Partnership for Assessment of Readiness for College and Careers

www.PARCConline.org



STATES IN THE PARTNERSHIP FOR
ASSESSMENT OF READINESS FOR COLLEGE AND CAREERS



Governing State



Participating State



Arizona's Participation

Governing Board

- Superintendent John Huppenthal

Advisory Committee on College Readiness (ACCR)

- Tom Anderes

Leadership Team

- Roberta Alley

Postsecondary Leadership Team

- Karen Nicodemus

Educator Engagement

- Sarah Galetti

Operational Working Group(s) Participation

- Content Frameworks / Fairness, Accessibility and Accommodations/ Design

Assessment Design

- K-12 and higher education content specialists

Transition & Implementation Institute

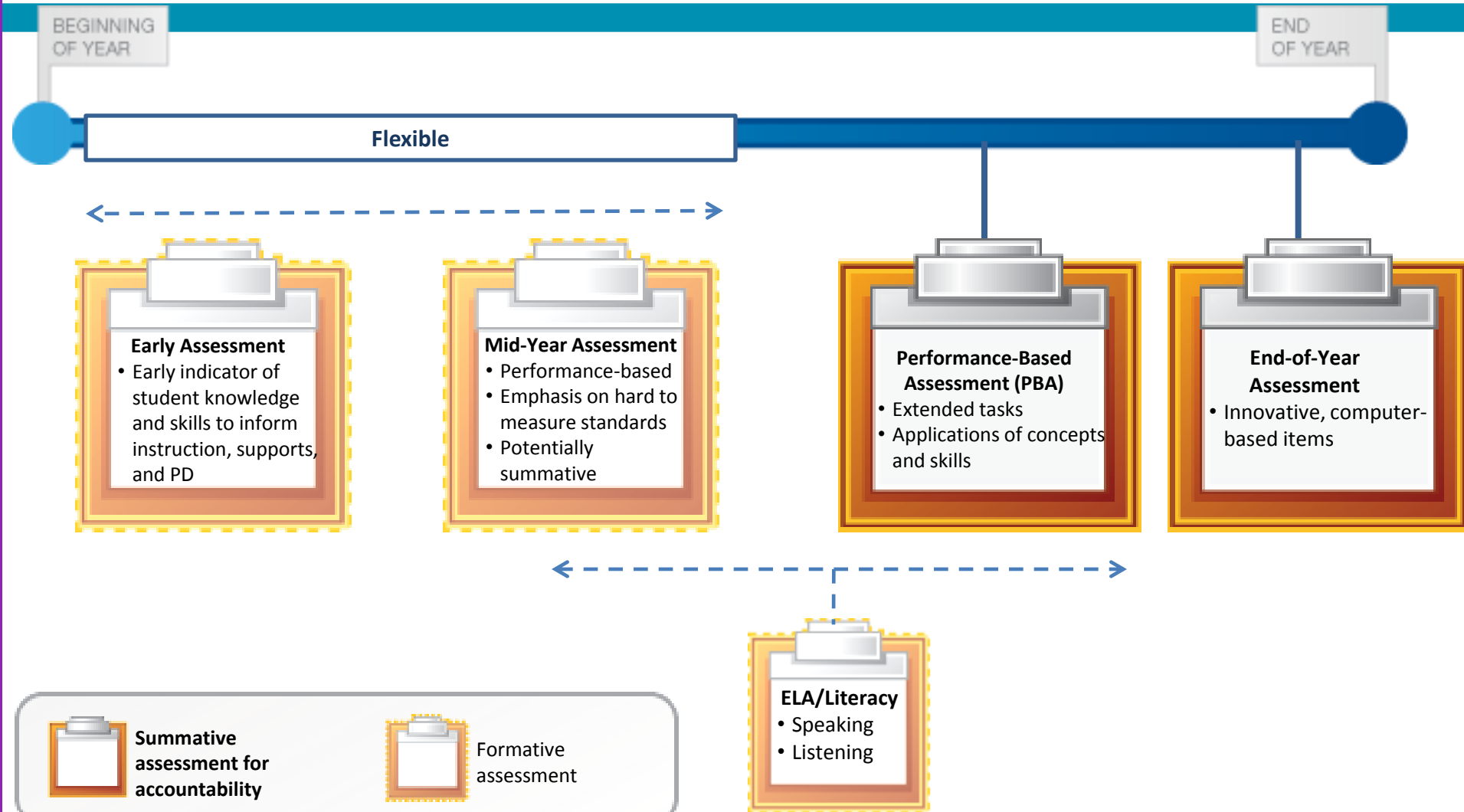
- 12 member team of Arizona Education Leaders/Kathy Hrabluk



The PARCC Goals

1. Create **high-quality** assessments
2. Build a pathway to college and career readiness for **all** students
3. **Support educators** in the classroom
4. Develop 21st century, **technology-based** assessments
5. Advance **accountability** at all levels

Goal #1: Create High-Quality Assessments



Goal #2:

Build a Pathway to College and Career Readiness for All Students

K-2 formative assessment being developed, aligned to the PARCC system

Timely student achievement data showing students, parents and educators whether ALL students are on-track to college and career readiness

College readiness score to identify who is ready for college-level coursework

Targeted interventions & supports:

- 12th-grade bridge courses
- PD for educators

K-2

3-8

High School

SUCCESS IN FIRST-YEAR, CREDIT-BEARING, POSTSECONDARY COURSEWORK

ONGOING STUDENT SUPPORTS/INTERVENTIONS



Goal #3: Support Educators in the Classroom

INSTRUCTIONAL TOOLS TO
SUPPORT IMPLEMENTATION

PROFESSIONAL DEVELOPMENT
MODULES

K-12 Educator

TIMELY STUDENT ACHIEVEMENT
DATA

EDUCATOR-LED TRAINING TO SUPPORT
“PEER-TO-PEER” TRAINING



Goal #4:

Develop 21st Century, Technology-Based Assessments

PARCC's assessment will be computer-based and leverage technology in a range of ways.

Item Development

- Develop innovative tasks that engage students in the assessment process

Administration

- Reduce paperwork, increase security, reduce shipping/receiving & storage
- Increase access to and provision of accommodations for SWDs and ELLs

Scoring

- Make scoring more efficient by combining human and automated approaches

Reporting

- Produce *timely* reports of students' performance throughout the year to inform instruction, interventions, and professional development



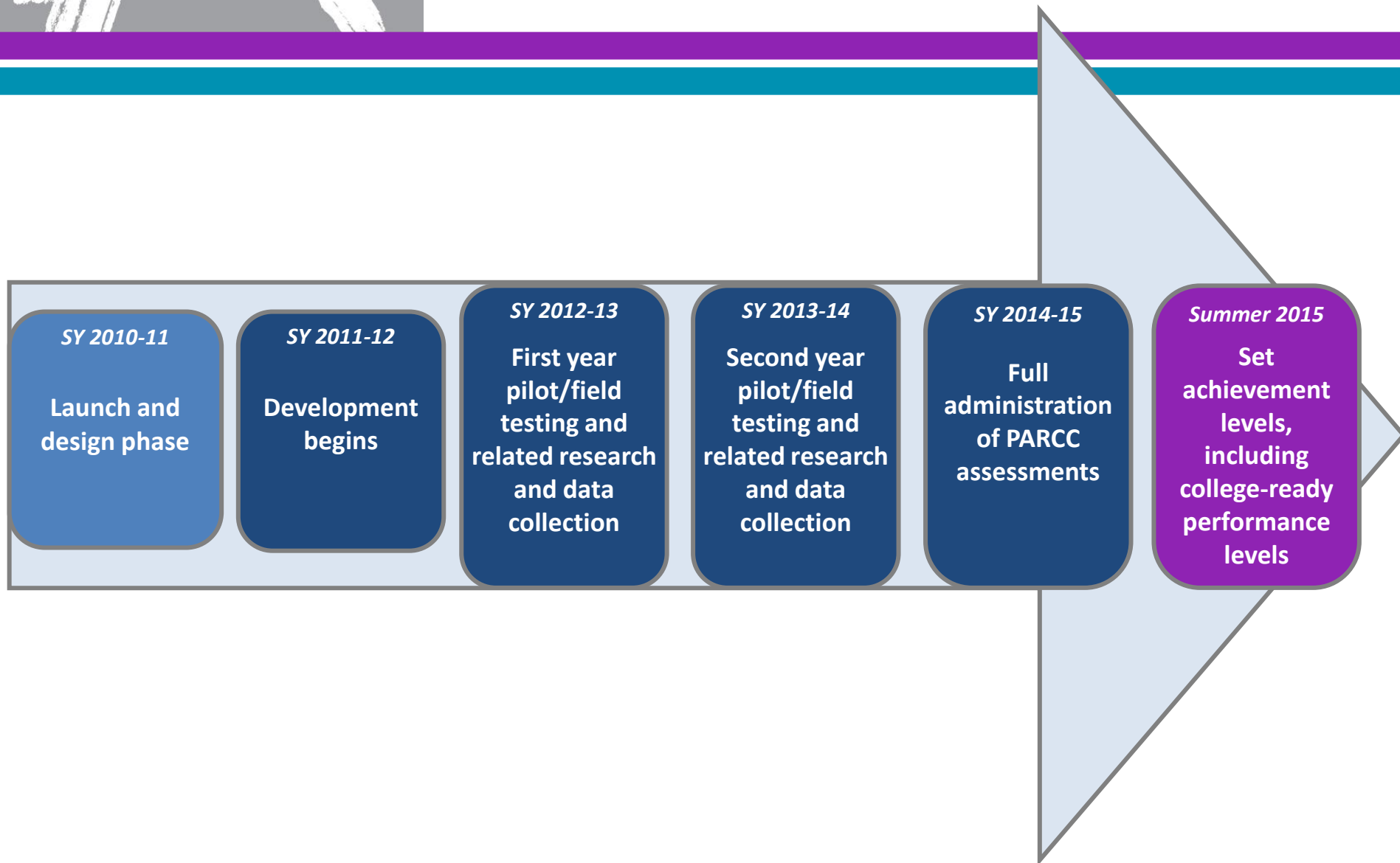
Goal #5: Advance Accountability at All Levels

PARCC assessments will be purposefully designed to generate valid, reliable and timely data, including measures of growth, for various accountability uses.

- School and district effectiveness
- Educator effectiveness
- Student placement into college, credit-bearing courses
- Comparisons with other state and international benchmarks

* PARCC assessments will be designed for other accountability uses as states deem appropriate

PARCC Timeline





Key Challenges for PARCC

Technical Challenges

- Developing an interoperable technology platform
- Transitioning to a computer-based assessment system
- Developing and implementing automated scoring systems and processes
- Identifying effective, innovative item types

Implementation Challenges

- Estimating costs over time, including long-term budgetary planning
- Transitioning to the new assessments at the classroom level
- Ensuring long-term sustainability

Policy Challenges

- Student supports and interventions
- Accountability
- High school course requirements
- College admissions/placement
- Perceptions about what these assessments can do



Key Challenges for Arizona

One Voice for Change

Technical Challenges

- Transitioning to a **computer-based assessment system**

Communication Challenges

- **Student expectations**
- Parent Engagement
- Multiple Stakeholders
- Common Message

Implementation Challenges

- **Transitioning to the new standards** and assessments at the classroom level
- **Transitioning the High School Competency Exam system**
- **Significant Shift in Instructional Focus**
- Higher Education Engagement
- Budgetary planning

Policy Challenges

- **Accountability**
 - Break in Trend
- College admissions/ placement
- Use of **NRT**
- Perceptions about what these assessments can do



Standards Awareness...

Understanding of the Common Core State Standards is key:

- Teacher and student preparedness for 2014-2015
- Pre-service teacher programs
- Principal evaluations of teachers
- Teacher evaluations and the emphasis on student growth and achievement
- Professional development needs

What does *your* staff need as you look ahead?

Please contact ADE for support and assistance.

**We are working toward a common goal and must communicate
“one voice for change.”**



Websites of Interest...

<http://www.ade.gov>

- Updated information, links, and resources for implementation and transition to the 2010 standards and PARCC assessment.

<http://www.achieve.org/>

- Achieve website. Achieve is the project management partner for PARCC.

<http://www.parcconline.org/>

- PARCC website. PARCC is the assessment consortium that Arizona is part of. Arizona is a governing state within the consortium.

<http://www.cehd.umn.edu/NCEO/>

- Here you will find the NCEO briefs and additional information related to assessing our current AIMS-A students (1%).

<http://www.corestandards.org/>

- This site will give you background and additional information about the standards. Much of this same information can be found on the new Arizona Department of Education website.

<http://www.ccsso.org/>

- Council of Chief State School Officers website. Excellent link to Hunt Institute and CCSSO Common Core Implementation Video Series.